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The Impact of College Internships on the Development of Tacit Managerial Knowledge and Career Confidence

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The Impact of College Internships on the Development of Tacit Managerial Knowledge and
Career Confidence

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Kaitlyn Christina Sawin

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Abstract

Despite the large number of students completing an internship, research examining the impact of those internships on students is fairly limited. The purpose of this study was to examine the potential impact that internships have on students, particularly in the areas of crystallization of vocational self-concept and the development of tacit managerial knowledge. Additionally, the impact of internships on career confidence and academic behaviors – in terms of class attendance and hours spent studying – was examined. A survey was developed and administered to business students who had completed zero, one, or two internships. It was hypothesized that students who had completed two internships would show greater levels of tacit managerial knowledge, vocational self-concept crystallization, and career confidence as well as stronger academic behaviors than students who had completed one internship or no internships. Results showed that the number of internships completed had no impact on crystallization of vocational self-concept or the acquisition of tacit managerial knowledge. However, number of completed internships did have an impact on an individual's career confidence and some academic behaviors.

The Impact of College Internships on the Development of Tacit Managerial Knowledge and Career Confidence

For many undergraduate students, the internship process has been a milestone in their academic career. While some universities require internships to be completed prior to graduation, many do not, and instead strongly encourage them, due to the many perceived benefits. As defined by Weible & McClure (2011), “An internship is a period of time (usually eight weeks) a student spends working in a company in a temporary position of education and practical application of coursework and subject matter, rather than employment”. Internships can sometimes be referred to by other names, including practicums, externships, apprenticeships, or co-ops.

According to the National Association of Colleges and Employers, sixty-five percent of graduates from the Class of 2015 completed an internship while working towards the completion of a bachelor’s degree (2015). Additionally, researchers have regarded internships as a critical component of the higher education experience (Gault, Leach, & Duey, 2010). A research review completed by Knouse & Fontenot (2008) found that 92% of business schools had some type of internship experience. However, there is not a wealth of research demonstrating that these experiences provide positive outcomes for students during their undergraduate college career. This lack of information can be detrimental to the future of such programs because “the lack of empirical research into the efficacy of internships diminishes their perceived legitimacy” (Duke, 2002 as cited in Gault, Leach, & Duey). Moreover, research shows that colleges are not reaping the benefits that such programs have the potential to provide (Weible, 2009). Having concrete knowledge that internship programs and requirements benefit students will be advantageous to students, employers and higher education institutions alike. The purpose of this study is to

discover a better understanding of the benefits that internships provide to students, as internships and other forms of experiential learning have become a more common practice prior to receiving an undergraduate degree. More specifically, this study will examine the impact of internships on the development of tacit managerial knowledge, vocational self-concept and student academic behaviors.

Kolb's Theory of Experiential Learning

Internships are an example of a type of learning referred to as experiential learning. Experiential learning is defined as, “the integration of theory and practice by combining academic inquiry with actual experience” (Stuckey, 2007). The practice of experiential learning has gained traction in undergraduate institutions, particularly in business schools, which aim to adequately prepare students for their future profession. Scientific research has found that, for many, it is the preferred learning method, as students may perform better when they are actively involved in the learning environment. Beyond preparation for future careers, experiential learning has also been shown to increase student motivation and attitudes, as well as participation in the classroom (Penrod, McCorkle & Harrell, 2016).

One of the most well recognized theories of experiential learning was developed by Kolb (1984). His theory builds on the work of Dewey (1938), Lewin (1951) and Piaget (1970) and many other acclaimed scholars, who all emphasized the importance of participating in the learning experience (Atkinson & Murrell, 1988). Kolb defines experiential learning as, “...the process whereby knowledge is created through the transformation of experience” (Kolb, 1984). According to Kolb, the cycle that individuals move through helps to add meaning, understanding, and insight into both the current experience, as well as prior experience (Armstrong and Mahmud, 2008). The first stage of Kolb's model is that of “concrete

experience”, or the stage at which learners encounter a new experience that would require active involvement for stronger learning outcomes. The next stage occurs when learners utilize past experience to understand a new perspective or take time during the task to reflect on what has been done and experienced, known as “reflective observation”. The third stage, known as “abstract conceptualization”, focuses on how learners develop solutions to adapt to the situation they have encountered and the environment they are in as a result and how a learner interprets what has occurred. The final stage – “active experimentation” – allows learners to test and apply the formulated solutions and consider how to apply learning outcomes to other situations (Chen, 2014 and Wain, 2017).

Researchers from Washburn University applied Kolb’s theory to the experiences of students completing criminal justice internships. In this context, they compared each stage of the experiential learning cycle to a specific point in the student’s internship experience – concrete experience was the initial immersion into the internship, reflective observation was the reactions that students had to the experience, abstract conceptualization was the description of the internship from a conceptual perspective, and active experimentation was the application of new concepts from the internship experience to other situations. This study found that most criminal justice interns had strong scores in the area of concrete experience, likely due to the active nature of the tasks provided during the experience (Grant, Dahl, and Bayens, 2016).

According to Kolb, the transition of a learner through this cycle requires different skills and abilities in order to adapt to the given situation, and he notes that flexibility is key for effective learning and optimal performance. Kolb argued that completion of all four stages is critical for effective learning, but most individuals will not be strong in all four stages. Instead, one or two of these steps tends to be stronger due to current environment or past experience

(Kolb, 1984). As the cycle begins again, a higher level of complexity is introduced because of the knowledge gained from the experience (Atkinson & Murrell, 1988). This theory has been utilized to understand a wide variety of learning experiences including understanding how fifth grade students interact with science lessons (Powell and Wells, 2002), using yoga to teach musculoskeletal anatomy (Bentley and Pang, 2012), and the application of geography in higher education (Healey and Jenkins, 2000).

Impact of Internships on Employers and Educational Institutions

Several studies have examined the impact of internships on the employers who hire student interns, as well as on the higher education institutions that promote or require the completion of internships. Gault, Leach and Duey (2010) surveyed 185 employers of nearly 400 interns and found that many employers view internships as a way of finding future employees. This study showed that employers are more likely to hire new employees who have previously demonstrated superior performance in a work environment than those who did not have prior work experience. Weible & McClure (2011) also found that employers believe they receive a number of other benefits from hosting interns at their company, including first choice of the best students, best chance of employee satisfaction, development of a network relationship with the college/university, fresh ideas from college students and affordable part-time help.

There are also benefits to colleges and universities that have internship programs. Weible (2009) found that 81.6% of respondents – all of which were deans of U.S. business programs - believed that students are more likely to enroll at an institution with an internship program and that student recruiting efforts are positively influenced by having internships. Divine, Linrud, Miller and Wilson (2007) have suggested that program requirements work best for schools that are not research-oriented and place an emphasis on undergraduate education. Schools that are

looking to increase community involvement or business relationships may also consider an internship requirement as a means of doing so. This is also beneficial for institutions that are looking to provide a competitive edge to students, boost national reputation or increase the selectivity of their programs (Divine, Linrud, Miller and Wilson, 2007)

Student Benefits From Participating In Internships

While the impact that internships have on employers and colleges and universities provides a valuable perspective on the potential benefits of internships, the focus of the present study is on understanding the impact that internships have on the undergraduate students who participate in them. Although prior research on the benefits of internship experiences for students has examined a variety of outcomes, most of these outcomes are either academic performance-related or career related. Research examining these benefits will be discussed next. It should be noted that much of this research is more anecdotal in nature and/or based on student perceptions of experience and outcomes. A relatively limited number of rigorous and carefully controlled studies, which will be the focus of this review, have been completed.

Academic performance. In a survey of over 1000 College of Business alumni from a large university, Knouse, Tanner, and Harris (1999) compared those who had completed an internship with those who did not and found that those who completed an internship had a significantly higher GPA upon graduation than those who did not, after controlling for academic potential measured by ACT scores. Research by Gomez, Lush & Clements (2004) also suggests that internships can positively impact academic performance. They examined students' final grades in their third year of school, after completing an internship in the second year. When all pre-university qualifications, prior academic achievements, and gender were controlled, it was found that students' final grades improved by approximately four percentage points following

their internship experience (Gomez, Lush, & Clements, 2004). The study completed by Eyler (1995), which surveyed 198 college graduates, provided similar results in the areas of academic success and career development. However, this study also linked such findings to career indicators for both advantaged and disadvantaged students to determine the impact that the internship was truly having on the collegiate experience.

Finally, the relationship of academic success to internship completion was also demonstrated in research completed by Binder, Baguley, Crook, and Miller (2015). Using data from over 15,000 students across 5 years at a large university in the United Kingdom, they found that completing an internship had a significant positive impact on both final year grades and degree class (an indicator of the student's academic rank relative to other students). These positive effects occurred for students regardless of their academic discipline, their gender or ethnicity and their level of prior academic achievement. The results of this study showed increased cumulative GPA by approximately 3.3% for students that completed an internship.

Career-related outcomes. Previous research has demonstrated that students can receive several career-related benefits from completing an internship. Research suggests that completing an internship enhances student retention in job applicant pools (Roever, 2000), results in more realistic expectations about the workforce (Hall, Stiles, Kuzma, and Elliott, 1996), and helps to clarify student career intentions (Knouse & Fontenot, 2008). Completion of an internship has also been found to assist students in finding post-graduate jobs. Research by Knouse, Tanner, and Harris (1999) found that among students who were employed following graduation, 55% had completed an internship and 47% had not, while among those students who had not secured employment post-graduation, only 36% had completed an internship but 64% had not, a difference that was statistically significant. This pattern of results suggests that completing an

internship may enhance employment opportunities, a conclusion supported by Taylor (1998), who found that students who had completed an internship had more job offers than students who did not. Additional studies have demonstrated that internships can make students more marketable by helping them develop tangible skills, such as critical thinking and written and oral communication (Maskooki, Rama, & Raghunandan, 1998; Perry, 1989; Raymond, McNabb, & Matthaei, 1993). Finally, several studies have found that individuals who had participated in an internship experience could command a higher salary on the job and generally experienced higher satisfaction in subsequent job opportunities (Taylor, 1998; Gault, Redington, and Schlager, 2000).

Vocational Self-concept

Another potential benefit for students from participating in an internship relates to a concept known as vocational self-concept. Vocational self-concept is the “constellation of self-attributes considered by an individual to be vocationally relevant” (Giannantonio and Hurley-Hanson, 2006). More specifically, it is the beliefs people have about the job-related skills, abilities, values and interests they possess. An important aspect of vocational self-concept relates to the clarity of the vocational beliefs as well as the certainty or confidence of the beliefs. This is referred to as the crystallization of vocational self-concept (Barrett & Tinsley, 1977; Taylor 1998). As vocational self-concept crystallization develops, individuals understand at a deeper level who they are, which translates to a more confident sense of self and personal priorities. Vocational self-concept crystallization has been found to impact several career related outcomes, including job decision effectiveness (Weng & McElroy, 2010), occupational indecision (Barrett & Tinsley, 1977; Landine, 2016) and decision making styles of Nigerian college students (Alao, 1994).

The development of a more crystallized vocational self-concept occurs as individuals become more aware of their interests, values, skills, and preferences through an examination of self in the context of occupational opportunities (Arnold and Materson, 1987). This suggests that relevant work experiences, such as an internship, might affect vocational self-concept crystallization. In a study designed to examine this possibility, Taylor (1998) predicted and found that students who had completed an internship had greater crystallization of vocational self-concept than students who had not. Additionally, results showed that students who had completed an internship displayed more confidence and less anxiety on the job and had stronger intentions to remain on the job once employed.

Acquisition of Tacit Managerial Knowledge

The prior research suggests that students can benefit both academically and in terms of their career focus and employability by participating in an internship. One variable that has not yet been tested in relation to the completion of internships is the development of tacit managerial knowledge. Tacit knowledge is the information that is acquired “during performance of everyday activities without conscious awareness of what is being learned” (Wagner & Sternberg, 1985). The term was initially introduced by Polanyi (1966) to characterize the knowledge that was gained from everyday experience, but that has an unarticulated quality. Tacit knowledge is a facet of practical intelligence, as it reflects the ability to learn from experience and apply the acquired knowledge in practical situations (Sternberg, Forsythe, Hedlund, Wagner, Williams, Snook, and Grigorenko, 2000).

Tacit managerial knowledge is gained through various experiences of the insights, beliefs, or values of another individual, rather than directly articulated knowledge (Ambrosini and Bowman 2001; Ancori et al. 2000; Nonaka and Takeuchi 1995; Sternberg 1994, 28; Polanyi

1976, as cited in Vera-Munoz, Chow, and Ho, 2006). Tacit knowledge is considered to be part of the all-encompassing job-relevant knowledge that an individual possesses, but it can often only be recognized within professional interactions (Schmidt & Hunter, 1993; Schons, 1983). Similarly, tacit knowledge may also be gained from “working on practical, everyday problems specific to their particular domain” (Borman, Hanson, Oppler, and Pulakos, 1993). One of the key challenges of understanding and sharing tacit knowledge is the incapability of knowing who possesses such knowledge and how to transfer it to another individual (Vera-Munoz, Chow, and Ho 2006).

Tacit knowledge has become widely utilized among various fields and studied in different capacities by Sternberg and Wagner. Tacit knowledge among academic psychologists has been found to be positively correlated with several job performance measures, including number of publications, number of conferences attended, academic rank, and time spent researching, among other factors (Wagner & Sternberg, 1985). Research examining managers (Wagner and Sternberg, 1987), and salespeople (Wagner, Rashotte, and Sternberg, 1994) has found that individuals with more relevant experience tend to also have higher levels of tacit knowledge.

Eddy (1988) completed a similar study on Air Force recruits and found that there was a positive relationship between tacit knowledge and scores on the Armed Services Vocational Aptitude Battery (ASVAB), a sequence of tests that measures cognitive ability (vocational-technical information, clerical/speed, verbal ability, and mathematics) and that is used in selecting candidates for the U.S. Armed Forces. Finally, Armstrong and Mahmud (2008) compared levels of tacit knowledge between novice and expert managers and found that novice managers had significantly lower levels of tacit knowledge than successful managers.

The findings from research on tacit knowledge suggest that having tacit knowledge can contribute to success in a variety of fields. While research has examined tacit managerial knowledge in the business field, it is not clear what specific types of experiences contribute to the development of this type of knowledge. In an effort to understand how this occurs, Vera-Munoz, Chow and Ho (2006) examined the knowledge sharing process within public accounting firms. They examined how three factors - information technology, formal and informal interactions among auditors, and reward systems - impacted and encouraged tacit knowledge sharing in the workplace. The study found that supervisor-subordinate relationships could facilitate the transfer and acquisition of tacit knowledge because of the close work environment. When an individual works closely with a professional within the desired field, and the act of supervision increases a manager's understanding of the challenges faced by a subordinate, more frequent and proactive knowledge sharing is likely to occur. Building on this research, the present study will examine the role of a college internship in developing tacit managerial knowledge.

The Present Study

This study seeks to understand how the number of internships completed impacts the development of tacit managerial knowledge and vocational self-concept crystallization. Prior research on tacit knowledge suggests that it may contribute to managerial success but this research has not provided significant information on the experiences that can be used to attain such knowledge. Additionally prior research on the benefits of internships for students has not yet examined the impact that the experience might have on the development of this type of subconscious knowledge. This study will add to both of these literatures by examining whether

there is a relationship between the number of internships a student completes and the development of tacit managerial knowledge.

Only one study (Taylor, 1998) was found that examined the impact of an internship during the undergraduate experience on vocational self-concept crystallization. This study will see if the results can be replicated. Finally, previous research on the academic impact of internships has primarily focused on how internships affect a student's GPA. This study will extend this research by examining several important academic behaviors - class attendance and hours spent studying. These academic behaviors might serve as mediating variables in the relationship between internships and GPA.

Hypotheses

The primary internship characteristic that was examined was the number of internships completed by the student. I predicted that number of internships completed would impact both tacit managerial knowledge and crystallization of vocational self-concept. Because tacit managerial knowledge is understood as knowledge gained from experience on the job, I expect that the highest level of tacit knowledge will be observed in students who have completed two internships for academic credit, and the lowest will be observed in students who have not completed any internships. This leads to the following hypothesis:

H1: Students who have completed two internships will have a greater amount of tacit managerial knowledge than students who have completed one internship, who will display greater tacit managerial knowledge than those who have not completed any internships.

A similar relationship will be shown between the number of completed internships and crystallization of vocational self-concept. As students complete more time in a work environment through more internship experiences, they are more likely to have both greater

clarity about their career interests and display more confidence in their career choice. Thus, it is hypothesized that:

H2: Students who have completed two internships will have greater vocational self-concept crystallization and career confidence than students who have completed one internship, who will display greater vocational self-concept crystallization and career confidence than those who have not completed any internships.

In addition, I also predicted that participation in internships would have a positive impact on their academic behaviors, such as class attendance and hours spent studying. As students learn more about work experience through the participation in internships, it is expected that the perceived value of classroom material will increase. Therefore, I hypothesized that:

H3: Students who have completed two internships will self-report fewer class absences regardless of class type – non-business, general business, or major specific courses – than students who have completed one internship, who will self-report few absences than students who have not completed any internships.

H4: Students who have completed two internships will self-report more hours studying regardless of class type – non-business, general business, or major specific courses – than students that have completed one internship, who will self-report more hours studying than students who have not completed any internships.

Method

Participants

Eighty-four undergraduate students at a private Midwest institution completed a survey designed to gather information regarding the impact of internships during the collegiate experience. The institution where research was collected requires all undergraduate students enrolled in business-related majors to complete two internships to fulfill graduation requirements. Gender, race, sexual orientation, religious beliefs, nationality, or financial status were not a factor in eligibility to participate in the study. The sample was selected by targeting upper-level classes where students would have completed no internships, one internship or two internships. However, in order to minimize variability in age and other experiences that might

influence the development of tacit managerial knowledge, only students in upper-level business classes were used.

Participants varied in gender, grade level, and internship experience, but all possessed basic knowledge of general business principles. Survey respondents were nearly evenly split between males (48%) and females (52%). Two-thirds of participants were in their senior year of college, with the remaining third split between sophomore (4%) and junior (29%) students. In regards to ethnicity, 86% of participants self-identified as White, with the remaining population split evenly between Black, South Asian, East Asia, Hispanic, and Mixed Ethnicity students. Participants were primarily 21 years old (41%) or 22 years old (37%), with all respondents falling within the age range of 19-23 years old. All primary academic majors within the business school were represented, with Marketing (32%) and Finance (31%) as the most popular areas of study.

Procedure

Participation in the study involved completing an approximately 130-question online survey. Participants accessed the prepared survey digitally through a survey link that they were provided and submitted their responses digitally. The survey was not timed, however, it was predicted to take 15-20 minutes to fully complete. Participants were provided information on the purpose of the study and time commitment prior to beginning the questionnaire. The act of proceeding with the completion of the survey served as their consent. Participation in the study was entirely voluntary and individuals had the opportunity to opt out at any point during the survey without penalty. Some students were offered extra credit points in one of their classes for completing the survey. All results were stored on a password-protected computer.

Measures

Number of internships completed. The primary independent variable that was examined in this study was the number of internships that a student had completed. Number of internships completed was measured by asking study participants to specify the number of internships completed for credit that they had completed at the point of survey completion. Students could have completed either zero, one or two internships for credit. Participants also indicated the number of additional internships they had completed not for academic credit.

Vocational self-concept crystallization. Vocational self-concept crystallization was assessed with a 15-item measure. Five of these items came from the Vocational Rating Scale developed by Barrett & Tinsley (1977). The remaining items were developed for purposes of this study. Items were rated using a 5-point Likert scale. Respondents indicated the extent to which they believed each statement was true or false for them, with “1” indicating that the response was “completely false” and “5” indicating that the response was “completely true”. Some examples of questions from the measure included “I am certain that my knowledge of my own interests and abilities is accurate”, “I have a clear idea of my own needs and desires with respect to a career”, “I’m not certain about what type of job environment I’d really be happy in” and “I know pretty much what I’m looking for in a college major and a career”. This measure had a coefficient alpha reliability of .85.

Career confidence. In addition to the measure of crystallization of vocational self-concept, a single item measure was provided to participants in order to gauge their current degree of career confidence. This measure asked about participants’ current understanding of the type of career they desire to pursue and thus, was much more focused and specific than the measure of vocational self-concept crystallization. Participants were asked to “Rate the level of confidence

level you have RIGHT NOW in the career path you want to follow.” Ratings were provided a 7-point Likert Scale with “1” being “very little confidence” and “7” being “extremely confident”.

Tacit managerial knowledge. Tacit managerial knowledge was measured using the Tacit Knowledge Inventory for Managers (TKIM), (Wagner & Sternberg, 1989). This measure presents respondents with work-related scenarios followed by a series of potential action statements related to the provided situation. Participants rated the action statements based on their perception of the quality of the response on a 7-point Likert scale, with “1” being “extremely bad” and “7” being “extremely good”. A sample situation from this measure as found in the Test Booklet created by Wagner and Sternberg (1989) can be found below:

“Your immediate superior had asked for your opinion on a new promotional campaign that she has developed. You think that the promotional campaign is terrible and that using it would be a big mistake. You have noticed previously that your superior does not take criticism well, and you suspect she is looking more for reassurance than for an honest opinion. Given the present situation, rate the quality of each of the following reactions on this 1-to-7 point scale.”

- a. Tell her that you think the campaign is great.*
- b. Tell her that you like the work but have some reservations about whether it is right for this client.*

In order to create a measure of the tacit managerial knowledge of study participants, participant responses to the TKIM were compared to the responses of subject matter experts (Armstrong and Mahmud, 2008). Eight retired business professionals (SMEs) completed the survey in order to create the baseline responses for the tacit managerial knowledge measure. The demographic breakdown of the SMEs was evenly split between male and females, all of whom self-identified as White. Their average age was 58 years old. All of the SMEs were seasoned or active contributors to the field of business, with 50% of them having more than thirty years of previous business experience. The baseline (or “correct”) score for each item on the TKIM was the average rating to that item given by the SMEs. Participants’ scores on tacit managerial knowledge were created by taking the absolute value of the difference between their response to

an item and the average response to that item given by the SMEs and then averaging this difference across all items on the TKIM.

Academic Behaviors. Two academic behaviors were measured – class attendance and hours spent studying. In order to measure the impact on class attendance, participants self-reported the number of absences from classes across three categories of classes – non-business, general business, and major specific courses. Participants were given six absence options to choose from ranging from zero class absences to “more than six”. Hours spent studying was measured in a similar way, as participants self-reported the number of hours spent studying per week for each of the three course categories – non-business, general business, and major specific courses during the previous semester. Participants were provided with six options ranging from “zero hours” to “20+ hours”.

For both measures on academic behavior, the courses were split into three categories in order to further understand the impact that internships may have on academic behaviors. By separating all undergraduate courses into the three groupings – non-business, general business, and major specific courses – more specific conclusions can be made regarding students class attendance and hours spent studying.

Control variables. Because participants could not be randomly assigned to the independent variable groups, data was gathered on several control variables in order to rule out the possibility of these groups having differences on the dependent variables prior to their participation in the study. In order to control for the possibility that participants in the independent variable groups were different in their level of tacit managerial knowledge before completing an internship, data was gathered on other types of experiences they might have had that could affect the amount of tacit managerial knowledge they have. Specifically, questions

were asked in regards to their previous management experience. Participants were asked about the number of jobs they have previously held, the nature of the jobs, and a description of any additional leadership or management positions that they have had in student organizations.

RESULTS

Table 1 presents the means, standard deviations and correlations between the variables used in the study.

Control Variable Analyses

In order to assess the potential impact that work and leadership/management experiences outside of internships for academic credit could have on the acquisition and development of tacit managerial knowledge a series of one-way Analysis of Variance tests were computed to see if there was a difference between students with zero, one, or two internships on a variety of other work and leadership/management experiences. These included the number of non-credit internships completed, number of jobs held, number of jobs with a supervisory role, number of student organizations with a leadership position, and number of student organizations with a supervisory role. The results showed that there were no significant differences between students with zero, one, or two internships in terms of number of jobs held ($F(2,77) = 0.185, p = 0.831$), number of jobs with a supervisory role ($F(2,77) = 0.563, p = 0.572$), number of student organizations with a leadership position ($F(2,77) = 0.112, p = 0.894$), or number of student organizations with a supervisory role ($F(2,77) = 0.785, p = 0.460$). However, statistically significant results were shown when looking at the number of non-credit internships ($F(2,77) = 5.186, p = 0.008$) held by students. Students who had completed two for-credit internships had more non-credit internships ($\bar{x} = 1.960$) than students who had completed zero ($\bar{x} = 1.080$) or one ($\bar{x} = 1.567$) for –credit internship. This suggests that, with the exception of non-credit

internships, there were no differences among students that had completed zero, one, or two internships in other experiences that could help to develop tacit managerial knowledge.

Given that there was a significant difference in the number of non-credit internships completed by students in the three independent variable groups (i.e., student who had completed zero, one or two for credit internships), an additional analysis of variance was done to see if the number of non-credit internships completed had a significant impact on any of the dependent variables used in the study. Results showed that number of non-credit internships completed did not have a significant impact on tacit managerial knowledge, vocational self-concept crystallization, career confidence, absences from class or hours spent studying. This suggests that differences in the number of non-credit internships completed by students is unlikely to be a plausible alternative explanation for differences in the dependent variables I find based on the number of for-credit internships completed.

Hypothesis Testing

In order to test the hypotheses of the study, a 3 x 2 Analysis of Variance was used. The number of internships that a student completed (zero, one, or two) and gender (male or female) were the independent variables. While gender was not originally included in any of the identified hypotheses, it was included as an independent variable in order to see if males and females responded differently to their internship experiences. Support for the hypotheses would be shown by a significant main effect for number of internships on the various dependent variables (i.e., tacit managerial knowledge, vocational self concept crystallization, career confidence, absences from class and hours spent studying). .

The first hypothesis was that students who have completed two internships would have a greater amount of tacit managerial knowledge than students who have completed one internship,

who would display greater tacit managerial knowledge than those who have not completed any internships. This hypothesis was not supported ($F(2,71) = 2.9, p = .62$).

The second hypothesis was that students who have completed two internships would have greater vocational self-concept crystallization and career confidence than students who have completed one internship, who would display greater vocational self-concept crystallization and career confidence than those who have not completed any internships. Results from the vocational self-concept measure proved to be statistically insignificant ($F(2,71) = 0.71, p = 0.494$). However, when using the single item career confidence measure, the hypothesis was supported ($F(2,71) = 2.9, p = 0.062$). Students who had completed two internships for credit reported significantly more career confidence ($\bar{x} = 5.76$) than students who completed one internship ($\bar{x} = 4.75$) or students who had completed no internships for credit ($\bar{x} = 4.88$).

The third and fourth hypotheses addressed the impact of internship completion on self-reported class attendance and hours spent studying. Specifically, I hypothesized that students who had completed two internships would self-report fewer class absences and fewer hours spent studying, regardless of class type, than students who had completed one internship, who would self-report few class absences and hours spent studying than students who had not completed any internships. For these hypotheses, participants were asked to report their behavior for three different types of courses: (1) non-business courses, (2) general business courses (required of all business students), and (3) major specific courses. Looking at self-reported class absences, there was no significant difference between zero, one and two internships completed for absences from general business courses ($F(2, 71) = .69, p = .52$) or from major specific courses ($F(2, 71) = .58, p = .56$). There was a significant difference in class absences for non-business courses ($F(2,71) = 3.17, p = .048$), but the differences were in the opposite direction from the direction

hypothesized. Specifically, students who had not completed any internships self reported fewer absences from non-business courses ($\bar{x} = 2.18$), than students that completed one ($\bar{x} = 3.25$) or two ($\bar{x} = 3.00$) internships.

Looking at self-reported hours spent studying, results showed that number of internships completed did not have a significant impact on the number of hours spent studying for non-business courses ($F(2,71) = 0.08, p = 0.92$) or general business ($F(2,71) = 0.12, p = 0.88$) courses. However, there was a significant difference in hours spent studying for major-specific courses ($F(2,71) = 2.78, p = 0.074$), but again, the differences were in the opposite direction from the direction that was hypothesized. Specifically, students who had completed two internships self-reported studying fewer hours ($\bar{x} = 2.32$) for major specific courses than students who had only completed one internship ($\bar{x} = 2.76$) or students that had not completed any internships ($\bar{x} = 3.17$). The Analysis of Variance test also showed that there was a tendency for women to self-report more hours studying than men in major specific courses ($F(2,71) = 2.848, p = 0.096$).

DISCUSSION

The purpose of this study was to understand the impact of undergraduate internships on student professional development, focusing specifically on how they impact the acquisition of tacit managerial knowledge, vocational self-concept and career confidence. An additional purpose was to see how number of internships completed might influence the academic behavior of students in terms of their self-reported absences from class and hours spent studying. In general, it was hypothesized that number of internships completed would have a positive impact on all dependent variables. Specifically, tacit managerial knowledge, career confidence, vocational self-concept crystallization and hours spent studying were all hypothesized to increase

as students completed more internships while self-reported class absences was predicted to decrease as students completed more internships.

Contrary to my hypothesis, I did not find that the number of internships completed had a significant positive impact on the development of tacit managerial knowledge. There are several possible reasons why students who had completed more internships did not demonstrate greater tacit managerial knowledge than those who had completed fewer. First, the tacit knowledge measure is based on the opinions of subject matter experts. When reviewing the data provided by these individuals, it became apparent that even amongst professionals with substantial business experience there was still a difference of opinion in perceptions of the effectiveness of the various responses to some of the situations on the measure. If experts cannot agree on the most appropriate response, then the measure is not really providing an accurate (or valid) measure of participants' tacit managerial knowledge. This could be why my results were not significant since my original measure of tacit managerial knowledge included all TKIM items, regardless of the degree of agreement (assessed by the standard deviation across SME ratings for each item) in ratings by the SMEs. To see if lack of agreement among the SMEs on the effectiveness rating for items might have contributed to the non-significant results I created a new measure of tacit managerial knowledge using only the items in the measure that yielded more agreement among subject matter experts (i.e., those items that had a standard deviation less than 1.4, on a 7-point rating scale). However, the results did not change, which suggests that this may not explain why my results were not significant.

Another factor that might account for the non-significant results for the tacit managerial knowledge measure is the nature of the work experience most students had. It is very possible that despite having had internship, job, or leadership experience, the nature of these experiences

may not have exposed students to the types of situations presented in the Tacit Knowledge Inventory for Managers measure. For example, one of the scenarios on the TKIM involved a manager needing to speak with a subordinate regarding a workplace policy violation. It is unlikely that most students would have ever witnessed such a situation in an internship or had to manage a similar situation at this stage of their career development, making it difficult for them to assess the effectiveness of the various responses provided. Consistent with this possibility, I also found no differences in tacit managerial knowledge for any of the other work and management experience variables (e.g. number of non-credit internships, number of jobs, number of employees supervised and number of leadership positions in student organizations) that I measured. This overall lack of managerial experience for all participants would have reduced the variability in the tacit knowledge measure, making it less likely there would be significant differences in this variable based on the number of internships students had completed.

A final reason my results for tacit knowledge might not have been significant is due to the sample size for my study. Because of the small sample size, there may not have been sufficient power to detect a significant difference, if there actually was one. Completing the study again using a larger sample would provide a stronger test of this hypothesis.

There were mixed results for my hypotheses relating to vocational self-concept crystallization and career confidence. Although the number of internships students had completed did not influence their vocational self-concept crystallization, it did influence their career confidence. As predicted, students who had completed two internships had significantly greater career confidence than students who had completed one or zero internships. This difference in results for these two measures, even though they are related concepts, may be due

to differences in the nature of the career-related beliefs assessed by these two measures. The questions on the vocational self concept measure were more abstract in nature and had a stronger focus on knowledge of self. Most of the questions assessed knowledge of one's personal values, career interests, and vocationally related skills and abilities. While internship experience may have provided opportunities for the development of tangible skill sets, these experiences may not have influenced student thinking about something abstract and more theoretical, such as their self-knowledge. However, when asked "how confident do you feel in your career path right now?" in the single item career confidence measure, statistically significant results were generated. These results demonstrated that students who had been exposed to more internships were more comfortable and confident in the career path that they identified with at the time of survey completion. This single item career confidence measure is less abstract than the vocational self-concept crystallization measure which, combined with students' exposure to multiple job types through internship experience, may be the reason why students were more easily able to articulate their feelings regarding career path.

I also found that number of internships completed had an impact on self-reported absences from class and hours spent studying but only for certain types of classes. Interestingly, the results for both were in the opposite direction from what I predicted. Students who had completed two internships reported more absences from non-business classes than students who had completed either one internship or no internships. Additionally, students who had completed two internships self-reported fewer hours spent studying for courses in their major than students who completed no internships. It was predicted that students would see more perceived value in academic course material and a greater understanding of its importance and thus, would both study more and miss class less often, but this is not what the results showed. This could have

occurred because the focus on the internship experience and the subsequent skills gained may provide a sense of “overconfidence” for a student and lead to beliefs that non-business courses are less important than what is being learned on the job or that major specific knowledge is better acquired via on-the-job learning such as in the internship environment. This idea may also be supported by the fact that students reported nearly equal amounts of time spent studying each week for non-business and general business courses regardless of their internship experience, as such knowledge is less likely to be gained from an internship experience defined by a specific department or job title. Another interesting result to consider, but without statistically significant results, is that students with the most internship experience had a tendency to self-report the least number of absences from major-specific courses. Coupled with the skills learned within the internship experience, students may believe that class attendance by itself is all that is required for them to feel they have mastered course material, leading them to study less in this area. It is also important to consider the additional workload that a student takes on when completing an internship in conjunction with a traditional semester course load, which may lead to difficult choices being made on how to adequately split their time amongst all activities and, consequently less time being spent in attending class or studying.

It is interesting to note that even though there were significant differences on some of the dependent variables based upon the number of internships completed for academic credit, the number of additional non-credit internships completed had no significant impact on any of those same dependent variables. This finding suggests that there may be something different about the student experience in non-credit internships than in internships completed for academic credit. One possibility that would support this idea is that many non-credit internships typically occur during the summer months and thus, are outside of the traditional semester workload. When this

occurs, students are more likely to treat this experience as a traditional job versus an academic learning experience, which would likely lead to fewer changes in beliefs and behavior and less impact on the dependent variables that were examined in this study.

Practical Implications

The results of this study provide interesting information to groups within academia and the professional world. While the results are tentative, this also can create a basis for valuable dialogue within higher education institutions that highly recommend or require internships within their undergraduate curriculum. Based on the results generated by this study, it might be the case that internships are not as valuable in a student's professional development as they are believed to be. While field experience prior to entering the workforce certainly has the potential to provide a myriad of benefits to students, the possibility for declined academic performance and only moderate improvement in career confidence should cause administrators to be cautious about the obligation to complete such experiences as part of their curriculum.

Additionally, given the potential for there to be a negative impact on academic behaviors, it is not only important, but also necessary for higher education professionals to convey the importance of classroom work in conjunction with experiential learning. While students may gain field related knowledge during the internships experience, the material learned in the classroom is important to understanding foundational business practices and creating a holistic individual. Having faculty and staff that are supportive of the internship experience and the added responsibilities that come with it may also help to combat the negative effects on class attendance and hours spent studying.

Suggestions for Future Research

While the completion of this study provided thought-provoking insight, replication or extension of this study is recommended to create more conclusive results. It is recommended that this study is replicated in multiple different learning environments (large institution vs. small institution, required internship program vs. encouraged internships, etc), to understand if the results that were found in this study hold true or vary based on other external or environmental factors, such as the culture of the school. For example, a study could explore how required internships versus encouraged internships affect the same dependent variables from this study to help determine how to provide the greatest benefit to students, employers, and higher education institutions. Additional internship characteristics that could be examined include the number of courses students are enrolled in when completing an internship, completion of internship during academic year vs. summer, for credit vs. non-credit internships, degree of supervision on the job and relationship with manager, and quality of tasks during the internship. Continuing research on the subject has the potential to significantly improve internship programs and increase their perceived legitimacy. These internship characteristics could be examined to determine the impact that they may have on the development of tacit knowledge, career confidence, vocational self-concept or other important outcomes.

Because of the tentative, but apparent, decline shown in the results surrounding a student's academic behaviors (class absences and attendance), it is suggested that additional research using a larger sample be done to assess the legitimacy of these results. Suggestions for future research in this area include measuring a student's semester GPA before and after the completion of an internship to understand if there is any change and how any changes in GPA

are related to changes in student academic behaviors, such as their class attendance or hours spent studying.

Limitations

Throughout the completion of this study, there were several factors that presented challenges or limitations. First, the population, which the sample could be drawn from, was limited because of the timeline in which students typically complete internships. In addition to the small population, the response rate to the survey was low, which provided fewer results than anticipated or desired. After examining the data, it was also found that many surveys were incomplete or provided incorrect information, further limiting the data pool that results could be drawn from. A larger sample size may have created more definitive or statistically significant results and may assist in better understanding the impact that internships have on the dependent variables that were examined.

Additionally, the nature of the study does not provide the ability to draw causal conclusions. Because this is a correlational study rather than experimental, it cannot be definitively stated that the number of internships is what led to differences on the dependent variables. Therefore, it can only confidently be stated that there is a relationship between these variables. An effort was made to assess the likely impact of potential confounds but future research using a longitudinal design where students can be assessed on the dependent variables both before and after completion of the internship will allow for a stronger conclusion regarding the impact of internships on the dependent variables.

Overall, this study aimed to understand if internship experience positively impacted a student's acquisition of tacit managerial knowledge, vocational self-concept, and academic behaviors. Using the foundation of prior research on the value of undergraduate internships and

adapting the study to examine new topic areas and their effect on experiential learning, this research aimed to provide a better understanding of positive outcomes of experiential learning opportunities.

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Table 1
Means, Standard Deviation, and Correlations Between Variables

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9
1. Tacit Managerial Knowledge	1.3663	0.35535		-0.093	0.136	0.072	-0.031	-0.10	0.054	-0.057	0.069
2. Crystallization of Vocational Self-Concept	3.4091	0.63929			0.599**	0.047	-0.007	0.016	-0.051	-0.066	0.071
3. Career Confidence	5.23	1.494				0.038	-0.115	0.025	-0.118	-0.17	0.214
4. Class Absences - Non Business	2.790	1.555					0.520**	0.325**	0.290**	-0.121	-0.090
5. Class Absences - General Business	2.450	1.3953						0.691**	0.081	0.319**	0.164
6. Class Absences - Major	2.200	1.2569							-0.052	0.161	0.355**
7. Hours Studying - Non Business	2.198	1.7566								0.452**	0.128
8. Hours Studying - General Business	2.443	1.4828									0.403**
9. Hours Studying - Major	2.700	1.2468									

** - Correlation is significant at the 0.01 level (2-tailed)

Appendix A

Sawin Thesis Questionnaire

Please read the following statement carefully. You are invited to take part in a research survey about the impact that experiential learning has on undergraduate students. Your participation will require approximately 15 minutes and is completed online at your computer. There are no known risks or discomforts associated with this survey. Participation in the survey and disclosure of your student identification number will allow researchers to provide you with your personal results from sections of the questionnaire. Taking part in this study is completely voluntary. If you choose to be in the study, you can withdraw at any time without adversely affecting your relationship with anyone involved. Your responses will be kept strictly confidential, and digital data will be stored in secure computer files. Any report of this research that is made available to the public will not include your name or any other individual information by which you could be identified. If you have questions or want a copy or summary of this study's results, you can contact the researcher, Kaitlyn Sawin (ksawin@butler.edu) or faculty advisor, Margaret Padgett (mpadgett@butler.edu) via email. Please feel free to print a copy of this consent page to keep for your records. Clicking the "Next" button below indicates that you are 18 years of age or older, and indicates your consent to participate in this survey. Thank you for your participation!

Student ID Number

Which of the following is true for you?

- ☐ I have NOT had any internships for credit
 - ☐ I am currently enrolled in LSB 401 or have only completed one internship for credit
 - ☐ I am currently enrolled in LSB 402 or have completed two internships for credit
-

In what semester did you complete LSB 401?

- ☐ Spring 2017
 - ☐ Summer 2017
 - ☐ Fall 2017
 - ☐ Spring 2018
-

If you have completed other internships, NOT for academic credit, please indicate how many you have completed.

- ☐ 0
 - ☐ 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ More than 4
-

The following section of the survey presents work-related situations, each followed by a series of items that are relevant to handling that situation. For each situation, briefly scan all of the items and then rate the quality of each item on the 1 to 7 Likert-style scale provided. Try to use the entire scale when you respond, although it is not necessary that you do so for each situation. For example, you may decide that none of the items listed for a particular response are good, or you may decide that they all are. There are, of course, no "correct" answers. "1" indicates an extremely bad response, whereas "7" indicates an extremely good response. Choosing a "4" would indicate that you believe the response is neither good, nor bad.

You are an executive vice-president in the marketing division of Sherman Electronics, a company that sells audio and video supplies. You have been with Sherman Electronics since finishing college, spent thirteen years in a managerial role in human resources and two years in your present position. Sherman Electronics has been losing market share for its products steadily over the past five years. Sherman's strength in the past has been introducing new products before its competition, but now its product line seems to be three steps behind the leaders in a rapidly changing market. A strategy of focusing on more stable segments of the market has been aborted because of fierce competition for large overseas companies. You believe that you lack of knowledge about the latest audio and video products and technology limits your effectiveness. Your schedule is very busy, but you think it is important to catch up on, and keep up with, innovation that affects your industry. Rate the quality of the following strategies for becoming more knowledgeable about new products and technology from 1-to-7.

Ask for a leave of absence to pursue an advanced technical degree

▼ 1 ... 7

Order a news clipping service (news clipping services provide news from a large number of sources on a given topic)

▼ 1 ... 7

Subscribe to several technical journals relevant to your manufacturing operations

▼ 1 ... 7

Subscribe to several consumer-oriented magazines that cover your products

▼ 1 ... 7

Begin attending trade shows of products in your industry

▼ 1 ... 7

Ask to sit in on weekly discussions of new product ideas held by the Research & Development division

▼ 1 ... 7

Attend a series of technical presentations by research scientists from outside the company who are brought in by the Manufacturing Operations division

▼ 1 ... 7

Hire a staff member whose primary responsibility is to keep you abreast of current trends in your industry

▼ 1 ... 7

Ask the Engineering division to prepare monthly summary reports of innovative products

▼ 1 ... 7

Ask for weekly presentations for you and your staff on technical issues in the Research & Development and Manufacturing Operations divisions

▼ 1 ... 7

An employee who reports to one of your subordinates has asked to talk with you about waste, poor management practices, and possible violations of both company policy and the law on the part of your subordinate. You have been in your present position only a year, but in that time you have no indications of trouble about the subordinate in question. Neither you nor your company has an “open door” policy, so it is expected that employees should take their concerns to the immediate supervisors before bringing a matter to the attention of anyone else. The employee who wished to meet you has not discussed this matter with her supervisor because of its delicate nature. Rate the quality of the following things you are considering doing in the situation from 1-to-7

Refuse to meet with the employee unless the individual first discusses the matter with your subordinate

▼ 1 ... 7

Meet with the employee but only with your subordinate present

▼ 1 ... 7

Schedule a meeting with the employee and then with your subordinate to get both sides of the story

▼ 1 ... 7

Meet with the employee and then investigate the allegations if an investigation appears warranted before talking with your subordinate

▼ 1 ... 7

Find out more information about the employee, if you can, before making any decisions

▼ 1 ... 7

Refuse to meet with the employee and inform your subordinate that the employee has attempted to sidestep the chain of command

▼ 1 ... 7

Meet with your subordinate first before deciding whether to meet with the employee

▼ 1 ... 7

Reprimand the employee for ignoring the chain of command

▼ 1 ... 7

Ask a senior colleague whom you respect for advice about what to do in this situation

▼ 1 ... 7

Turn the matter over to your assistant

▼ 1 ... 7

You have just completed your most important project ever, which involved automating the company's warehouses. You have worked many evenings and weekend days over the last six months on this project. You are pleased with your performance because, despite adversity, the project was completed at the projected cost and on time. Near the project's end, it seemed likely that you were going to need additional time and money. But, through hard work on your part, and by pushing some of your people very hard, you met both time deadlines and cost projections. In a meeting, your supervisor (having been in his position for six months), brings up the topic of your performance on the project. Expecting lavish praise, and perhaps even discussion of a possible increase in responsibility, you are stunned by his evaluation of your subordinates, which is entirely negative. He states that some of your subordinates have complained to him directly about their treatment at your hands in the last phase of project completion. He questions your ability to manage others, and wonders aloud about your ability to lead others. He says nothing positive about the fact that you completed the project on time and at cost under adverse circumstances, nor about how hard you worked on the project. Rate the quality of the following things you might do in this situation.

Admit that you perhaps were too hard on your workers, but state that in your judgment, the importance of meeting the deadline and projection made your actions necessary

▼ 1 ... 7

Express disappointment with your performance appraisal, and state that you think it is one-sided

▼ 1 ... 7

Accept the criticism and explain how you will behave differently in the future

▼ 1 ... 7

Try to find out if anything else is behind your overly negative evaluation

▼ 1 ... 7

Begin looking for a new position

▼ 1 ... 7

Discuss with your supervisor specific examples of where he thinks you went wrong in dealing with the project, and how he would've handled it more effectively

▼ 1 ... 7

Ask your supervisor to give you a second chance, resolving to yourself to keep him better informed about your activities in the future

▼ 1 ... 7

Ask your supervisor to help you develop your skills at managing others

▼ 1 ... 7

Seek the advice of others you trust in the company about what you should do

▼ 1 ... 7

Admit that you might have made some mistakes, but be sure your supervisor is aware of all that you have accomplished and the adverse circumstances that you faced.

▼ 1 ... 7

Rate the quality of the following strategies for handling the day-to-day work of a business manager on a 1-to-7 point scale.

Think in terms of tasks accomplished rather than hours spent working

▼ 1 ... 7

Use a daily list of goals arranged according to your priorities

▼ 1 ... 7

Reward yourself upon completion of important tasks for the day

▼ 1 ... 7

Be in charge of all phases of every task or project that you are involved in

▼ 1 ... 7

Take frequent but short breaks (i.e., a quick walk to the mail room) throughout the day

▼ 1 ... 7

Do only what you are in the mood to do to maximize the quality of your work

▼ 1 ... 7

Take every opportunity to get feedback on early drafts of your work

▼ 1 ... 7

Set your own deadlines in addition to externally imposed ones

▼ 1 ... 7

Do not spend much time planning the best way to do something because the best way to do something might not be apparent until after you have begun to do it

▼ 1 ... 7

You have been asked to give a talk to managers in the company on tips for good business writing. Rate the quality of the following pieces of advice about business writing that you are considering including in your talk on a 1-to-7 point scale.

Write reports so that the main points are understood by a reader who only has time to skim the report.

▼ 1 ... 7

Explain, in the first few paragraphs, how the report is organized.

▼ 1 ... 7

Use everyday language and avoid business jargon.

▼ 1 ... 7

Work hard to convey your message in the fewest number of words.

▼ 1 ... 7

Consider carefully whom you are writing for.

▼ 1 ... 7

Write carefully the first time around to avoid having to rewrite.

▼ 1 ... 7

Be formal rather than informal in your style.

▼ 1 ... 7

Avoid visual aids, such as figures, charts, and diagrams, because they often oversimplify the message.

▼ 1 ... 7

Use the passive rather than active voice.

▼ 1 ... 7

Avoid using the first person tense.

▼ 1 ... 7

You have been assigned to revise the policy manual for your division of the company. You have six weeks to complete the assignment. The old policy manual was too vague, resulting in several individuals attending to matters only one need handle, and other important matters receiving the attention of no one. Responsibility for the new policy manual is completely yours. The assignment is somewhat of a "hot potato" because of the effects of the division policy on the importance of particular management positions in the division. You believe that how this assignment turns out could have important positive or negative consequences for your career. Rate the quality of the following courses of action you might take in terms of their leading to positive consequences on a 1-to-7 point scale.

Decide right away if you can come up with a reasonable product that would be satisfactory to most - if not, try to get out of the assignment.

▼ 1 ... 7

Learn as much as possible about your superiors' views on policy covered by the manual.

▼ 1 ... 7

Stick with revisions your superiors favor or probably could be sold on.

▼ 1 ... 7

Get feedback from your superiors on drafts of new policy under consideration.

▼ 1 ... 7

Get feedback from those affected by the policy manual on drafts of new policy under consideration.

▼ 1 ... 7

Form a committee with representation from every department that will share responsibility for the assignment.

▼ 1 ... 7

Find out, if you can, why you, specifically, were chosen for this assignment.

▼ 1 ... 7

Use this opportunity to reduce the power of those in the division who do not support you, as long as you can avoid being obvious about it.

▼ 1 ... 7

Avoid mentioning by name individuals whose poor performance is the cause for a particular policy revision.

▼ 1 ... 7

Don't worry if you miss the deadline for the policy manual as long as you are making progress.

▼ 1 ... 7

You are looking for a new project to tackle in the coming year. You have considered a number of possible projects and desire to pick the project that would be best for you. Rate the importance of the following considerations when selecting new projects on a 1-to-7 point scale.

The project is the one my immediate superior most desires to be completed.

▼ 1 ... 7

Doing the project would require my developing skills that may enhance my future career success.

▼ 1 ... 7

The project should attract the attention of the local media.

▼ 1 ... 7

Doing the project should prove to be fun.

▼ 1 ... 7

The risk of making a mistake is virtually nonexistent.

▼ 1 ... 7

The project will require my interacting with senior executives whom I would like to know better.

▼ 1 ... 7

The project is valued by my superior even though it is not valued by me.

▼ 1 ... 7

The project will enable me to demonstrate my talents that others may not be aware of.

▼ 1 ... 7

The project is in an area with which I have a lot of experience.

▼ 1 ... 7

The project is one I most want to do.

▼ 1 ... 7

Page Break

You and your co-worker jointly are responsible for completing a report on a new product by the end of the week. You are uneasy about the assignment because your coworker has a reputation for not meeting deadlines. The problem does not appear to be a lack of effort. Rather, your coworker seems to lack certain organizational skills necessary to meet a deadline and also is quite a perfectionist. As a result, too much time is wasted coming up with the "perfect" idea, product, or report. Your goal is to produce the best possible report by the end of the week. Rate the quality of the following strategies for meeting your goal on a 1-to-7 point scale.

Divide the work to be done in half and tell him that if he does not complete his part, you obviously will have to let your immediate supervisor know it is not your fault.

▼ 1 ... 7

Politely tell him to be less of a perfectionist.

▼ 1 ... 7

Set deadlines for completing each part of the report, and accept what you have accomplished at each deadline as the final version of that part of the report.

▼ 1 ... 7

Ask your superior to check up on your progress on a daily basis (after explaining why).

▼ 1 ... 7

Praise your co-worker verbally for completion of parts of the assignment.

▼ 1 ... 7

Get angry with him at the first sign of getting behind schedule.

▼ 1 ... 7

As soon as he begins to fall behind, take responsibility for doing the report yourself, if need be, to meet the deadline.

▼ 1 ... 7

Point out firmly, but politely, how he is holding up the report.

▼ 1 ... 7

Avoid putting any pressure on him because it will just make him fall even more behind.

▼ 1 ... 7

Offer to buy him dinner at the end of the week if you both meet the deadline.

▼ 1 ... 7

Ignore his organizational problem so you don't give any attention to maladaptive behavior.

▼ 1 ... 7

For the following questions, use the 5-point Likert scale to determine how true you believe the statement to be when personally evaluating yourself. "1" indicates that the response is completely **false**, whereas "5" indicates that the response is completely **true**. Choosing a "3" would indicate that you are neutral and/or not particularly swayed one way or the other.

	1	2	3	4	5
I just can't make up my mind about the type of work I am cut out for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know my own values well enough to make a career decision right now	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On the basis of past experience, I have a clear picture of what kind of person I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I just don't know if I have the traits that some lines of work require	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't know my values in respect to careers as much as I would like to	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am certain of what I like to do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am certain of what I have to offer the world of work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

as much as
someone else
my age

I am not
certain about
the type of
environment
that I would
work best in

I have a clear
idea of my
own needs
and desires
with respect
to a career

I am not
certain about
what type of
environment
that I would
work best in

I know what I
am looking to
get out of my
college major

I understand
how I work
with others in
professional
settings

I have always
known what I
wanted to do
as a career

I have always
had strong
feelings about
the path I
would pursue
in terms of
education
after high
school

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

I know that I
have unique
skills that
would make
me a strong
job candidate

☐ ☐ ☐ ☐ ☐

For the following set of questions I would like you to think about your feelings at two different points in time: (1) how you feel RIGHT NOW and (2) how you felt BEFORE you started your most first internship. For each question, please rate your level of interest (or confidence) on a scale from 1 to 7. A rating of "1" would indicate that you have (or had) very little interest (or confidence) while and a rating of "7" would indicate that you are (or were) extremely interested (or confident).

Rate the amount of interest you have RIGHT NOW in the courses for your primary major.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
-

Now think back to how you felt BEFORE you began your first internship and rate the level of interest you had at that time in the courses for your primary major.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

Page Break

Rate the level of confidence level you have RIGHT NOW in the career path you want to follow.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

Now think back to how you felt BEFORE you began your first internship and rate the level of confidence you had at that time in the career path you wanted to follow.

- ☐ 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ 7
-

How closely was your first internship related to the career you intend to have after graduation?

- ☐ Completely Unrelated
 - ☐ Somewhat Unrelated
 - ☐ Neutral
 - ☐ Somewhat Related
 - ☐ Definitely Related
-

How closely is your current internship related to the career you intend to have after graduation?

- ☐ Completely Unrelated
- ☐ Somewhat Unrelated
- ☐ Neutral
- ☐ Somewhat Related
- ☐ Definitely Related

For the following two questions, please think back to the previous semester and provide estimated answers based on this time frame.

Number of absences from classes. (If you are not taking any classes of a particular type, please select "not applicable")

	0	1-2	3-4	5-6	More than 6	Not Applicable
Non-business courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General business courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Major specific courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Number of hours studying per week

--

	0-4	5-9	10-14	15-19	20+	N/A
Non-business courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General business courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Major specific courses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many jobs (in total, not including internships) have you had?

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ More than 4

In any of these jobs, were you responsible for supervising other people?

- ☐ No, I have never had a job where I was responsible for supervising other people.
- ☐ Yes, I have had one job where I was responsible for supervising other people.
- ☐ Yes, I have had two or more jobs where I was responsible for supervising other people.
-

For each job where you had supervisory responsibilities, please indicate approximately how many employees you supervised.

	Fewer than 5 individuals	5-9 individuals	10-14 individuals	15-19 individuals	20+ individuals	N/A
Job 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job 4+	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate the number of student organizations in which you have held a leadership position while in college. For the purpose of this survey, please consider a "leadership position" to be an elected or appointed position within that organization.

- ☐ 0 Organizations
- ☐ 1-2 Organizations
- ☐ 3-4 Organizations
- ☐ 5-6 Organizations
- ☐ 7 + Organizations

In any of these leadership positions, were you required to supervise other people (e.g. team, board or committee members)?

- ☐ No, I have not had a leadership position where I supervised other people.
- ☐ Yes, I have had ONE or TWO leadership positions where I supervised other people.
- ☐ Yes, I have had THREE or more leadership positions where I supervised other people.

If you supervised individuals while in a leadership position, on average, how many people directly reported to you? (Note: this is NOT the total number of people within the organization)

	1-3	4-6	7-10	11-15	15+	N/A
Position 1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Position 2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Position 3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Position 4	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Position 5+	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What is your current class?

- ☐ First Year
- ☐ Sophomore
- ☐ Junior
- ☐ Senior
- ☐ Fifth Year

What gender do you most closely identify with?

- ☐ Male
 - ☐ Female
 - ☐ Non-binary
 - ☐ Other
-

What is your racial or ethnic background? Select all that apply.

- ☐ Non-Hispanic White or Euro-American
 - ☐ Black, Afro-Caribbean, or African American
 - ☐ Latino or Hispanic American
 - ☐ East Asian or Asian American
 - ☐ South Asian or Indian American
 - ☐ Middle Eastern or Arab American
 - ☐ Native American or Alaskan Native
 - ☐ Other
-

What is your current age?

What is your primary major?

What is your secondary major (if applicable)?

What is your current GPA?

☐ Under 2.0

☐ 2.0-2.49

☐ 2.5-2.99

☐ 3.0-3.49

☐ 3.5-4.0

What was your best (highest) ACT Score? (Leave blank if Not Applicable)

What was your best (highest) SAT Score? (Leave blank if Not Applicable)

What was your final High School GPA?
